

D&R 1Q07 Turnaround Lessons Learned

Lessons Learned / Issues

- Steaming to the flare overloaded level in relief drums. Impacted turnaround schedule, include adding steam condensing unit on the end of the relief header to condense and recover steam
- Air Products support + Great communications
- Need TA database training (include Turnovers, extra work plt/equip/description)
- Non-open flame MOC permits communications (change RI or train personnel)
- Entry and exit traffic at Gate 91... somewhat chaotic early, plus traffic patterns coming and going. Can we do anything better - More turnstiles, more entry and exits. It might be worthwhile to relocate the bus stop. Having the crossing guard is helpful. Portable badge readers on the bus will allow busses to go through the gate. from Red Hats
- Scott Air trailers waiting for refills or not getting trailers to CTR, not properly trained for egress on new packs.
- Furnace entry RI-9920 (N2 in tubes) personnel concerned with N2 in tubes review expectations with CFD/safety pre TA
- PVD database, all still learning. Not to hold up entries, only for record keeping if below 10K ppm. C-830 not on list, mistaken for South Isomax C-830
- Inert entry books, make standard and add to RI-9920 Appendix II
- Selenium concerns in #5H2S, no badges not in matrix
- Hydro blaster tying into fire water boxes (dwop)
- Fire watches / entry attendants not CVX trained
- Cranes using portable air horn for lifts, evacuated personnel-should only use crane horn
- Orbits welded in wrong-correct/training or specify in EWO
- Updating permits, not updated when time to work starts-action hold pre-turnaround meeting with Ops, CFD, Maint to discuss expectations and agreements on permit updates. Requirements to update permits. Non open flame permits (extensions and requirements for units on the street out of plant)
- ½ face vs. full face respiratory qualified- qualified companies
- Incorrect hoses used for clean up. Air hoses rated for psi but not temp or hydrocarbon. Cargo hoses to temp pumps -RI on hoses
- Opening of vessels which have LEL Benzene and closing back up- need plan to use SCBA to remove sludge not close vessel. Will not get clean by sitting
- Electrical coordination, held up PSSR 9 Plt
- Lack of training-fresh water pump, N2 vaporizer trailer delayed work
- Communications with hole watches wrong channel, Canatex vs. Welltech hole watches depended on the jobs
- LOTO issue like every other shutdown since LOTO introduced
- Plant Fire protection systems compromised
- O2 freeing procedures- Leak Check then O2 free plant should be the standard.
- Understanding of valve work, need Machinist / DED / Ops walk list ahead of issuing EWO's for valve replacements. Also using the extra work process to identify valves

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- Packed Column guidelines: Add to review status after one week of being open and discuss removal of monitoring. CO monitors worked great, TI's worked.
- Flow test did not reach desired flow. CO gave readings when started water flow test, believe water vapor affects readings, no other source present.
- TA database for tracking valves needs a clear procedure
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